

**Table III (1 of 2)**  
**Identification of Emerging Technologies**  
**Source Category: Portland Cement Kilns**

Pollutant: NO<sub>x</sub>

Description of Emerging Technology	Status	Source	Comments
process modification to get more optimum kiln operation, e.g., excess air control	unknown	Alternative Control Techniques Document--NO <sub>x</sub> Emissions from Cement Manufacturing	approximate emission reduction of 25%
staged combustion in precalciner	unknown	Alternative Control Techniques Document--NO <sub>x</sub> Emissions from Cement Manufacturing	30-45 % emission reduction
conversion to indirect firing with a low NO <sub>x</sub> burner	unknown	Alternative Control Techniques Document--NO <sub>x</sub> Emissions from Cement Manufacturing	20-30 % emission reduction
selective non-catalytic reduction with either ammonia or urea	unknown	Alternative Control Techniques Document--NO <sub>x</sub> Emissions from Cement Manufacturing	30-70 % emission reduction
selective catalytic reduction	unknown	Alternative Control Techniques Document--NO <sub>x</sub> Emissions from Cement Manufacturing	80-90 % emission reduction

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